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E-Cl!k: An Educational Web Portal

Pratibha S. Yalagi

Assistant Professor, Walchand Institute of Technology,
Dept. of Information Technology, Solapur,
Maharashtra, India.

Chaitrali S. Dangare

Lecturer, Walchand Institute of Technology,
Dept. of Information Technology, Solapur,
Maharashtra, India.

Abstract — Now a day Internet constitutes web portals as a major source to obtain information. The main purpose of a web portal is to support information sharing over the internet. In last proposed work we represented the design of a E-Cl!k web portal for our institute. This paper presents, implementation of E-Cl!k web portal. This Portal contains six main dimensions: E-submission, E-alerts, E-learning, E-examination, E-records and E-results. This is a Web-based application which can be distributed to variety of devices and desktops. To development of E-Cl!k web portal takes the advantage of the C#, ASP.net and JAVA script technologies.

Keywords – Educational Web Portal, E-facilities, Web Application, Web Portal, Web Portal Design

I. INTRODUCTION

Generally in institutions huge amount of knowledge and resources are available, that needs to be shared between students and faculty members for optimum use. Today's educational scenario is changed rapidly and demanding greater level of communication between students and faculty members for knowledge and resources sharing. This sharing can be achieved with number of ways. The new innovation of Teaching – Learning process is 'e-learning' [3]. One of the ways to achieve this goal and learning is use of web portals. A Web portal can be defined as a Web site that aggregates an array of content and provides a variety of services including search engines, directories, news, e-mail and chat rooms [1]. Web portals are used in many fields such as government, news, personal, cultural, stock etc. Nowadays, Web portals are also used in higher education field; it can help to share data and services among the users throughout your institute or university. Web portals can serve as powerful tools to help knowledge organizations, such as universities, colleges and improve their collaborative activities [3]. Educational web portals have offered great opportunities for the institutes in higher education sectors to provide their services to the users. Educational Web portals generally serve as gateways to information and services of some learning or teaching relevance and may cover a variety of types [5]. Portals are becoming an increasingly important part of the information technology infrastructure of universities as they seek to integrate the vast intellectual resources within a central virtual space that is easily accessible via a web interface [2]. We have designed and developed a web portal E-Cl!k for our institute.

II. E-Cl!k WEB PORTAL

E-Cl!k is an educational web portal designed for Information Technology department of our institute. E-Cl!k web portal provide online facilities such as E-submission, E-alerts, E-learning, E-examination, E-records and E-results. In our previous paper we have proposed the design of E-Cl!k web portal for our department. To fulfill the objective E-Cl!k web portal provides following features[4]:

1. *E-Submission*: The efforts for writing journals, programs & question answers will be reduced. The features included in this facility are as follows:
 - a. Practical Submission
 - b. Journal Submission
 - c. Subjective Submission
2. *E-Alerts*: Here, the time required to see the notice board will be saved. The features included in this facility are as follows:
 - a. Notice for any test, campus recruitment, events, and competitions
 - b. Submission Date Details
 - c. Exam Time table
 - d. Good wishes will be sent via portal to mails and to cell.
3. *E-Learning*: The process of acquiring knowledge through systematic study and practice is achieved with learning. The features include in this facility are as follows:
 - a. Handouts of respective classes
 - b. Assignment list for the practical session
 - c. Video lectures
4. *E-Examination*: The act of conducting an exam to test knowledge of students. The features included in this facility are as follows:

- a. MCQ test
- b. Aptitude test
- 5. *E-Records*: The attendance record of students during lectures and practical sessions will be recorded. The features included in this facility are as follows:
 - a. Class Attendance
 - b. Defaulter list
 - c. Any test attendance

A new feature is included in the E-Click web portal is E-results.

- 6. *E-results*: Here the outcome of students for tests is recorded. The features included in this facility are as follows:
 - a. Class results
 - b. Any test results

III. E-Click SYSTEM DESIGN MODULE

The diagram 1 represents overall design of E-Click web portal. There are three main modules in E-Click web portal,

1. Module 1: Admin
2. Module 2: Faculty
3. Module 3: Student

The functionality of each module is discussed below.

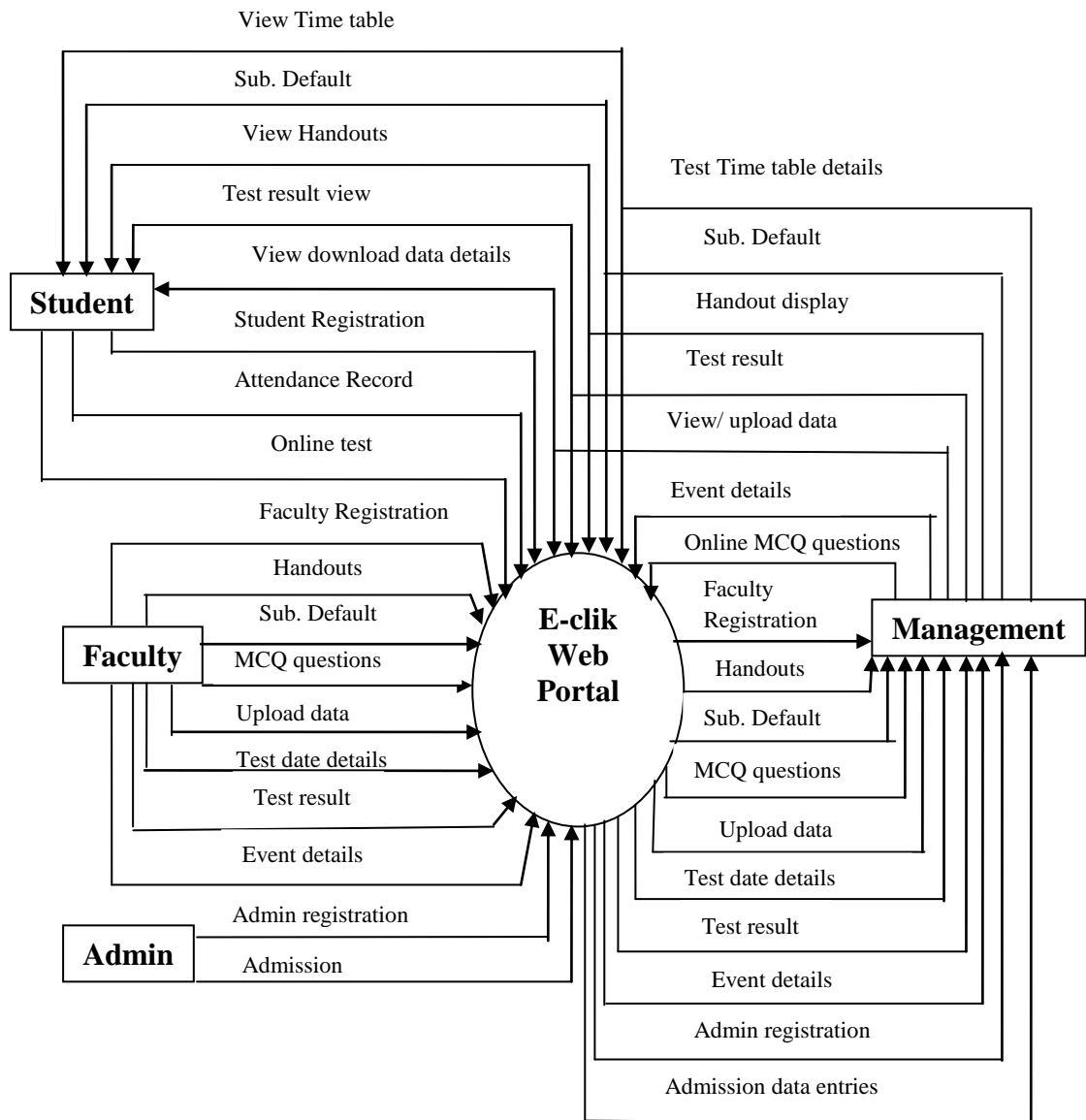


Fig. 1 E-Click Portal design

1. Admin Module:

Admin plays a vital role in this E-Click Web Portal. This module has given whole authority to manage overall control and access of E-Click web portal. An exciting feature added is Change Admin, where he can give the admin rights to other respective faculty through mail and also provided the facilities of faculty.

2. Faculty Module:

The Faculty Module provides facilities such as, Edit Profile, Inbox, Upload, Attendance, Test, Result, and Report. In Edit Profile option the faculty can update their profile. The Inbox option provides checking the assignments uploaded by students for submission year wise. Upload option provides uploading the features for the students such as handouts, alert, attendance and results. Handouts option provides uploading of practical and theory handouts. Alert option provides uploading the alerts such as, any notices related to academic or extracurricular activities for all students of department. Attendance option provides online attendance of all students taken during lectures and practical. Test option provides uploading MCQ's or Aptitude test questions for all students'. Result option provides uploading the test result, aptitude test results of all students. Record option uploads attendance of lectures of all students month wise and also uploads defaulter list of students' class wise.

3. Student Module:

This module provides different options to students such as, Online Test, Result, Attendance Report, Faculty View Profile and News. Edit Profile option provides modifying profile of a student. Inbox option views and download the assignments, handouts uploaded by faculty for submission. Submission option uploads and submits their assigned theory or practical Online Test, Result, Attendance Report, Faculty View Profile and News. Edit Profile option provides modifying profile of a student. Inbox option views and download the assignments, handouts uploaded by faculty for submission. Submission option uploads and submits their assigned theory or practical assignments as per respective subject to respective faculty. Online Test option provides online MCQ or Aptitude test uploaded by faculty in a given period of time. Result option displays results of their appeared test as soon as test gets finished. News option shows alerts or notices uploaded by faculty class wise or all students of department regarding academic and extracurricular activities. Attendance Report option displays attendance of a student month wise and also defaulter list uploaded by faculty in respective subjects. Faculty View Profile views the faculty profile.

IV. DATABASE DESIGN

The Fig. 2 represents database design for E-CI!k web portal.

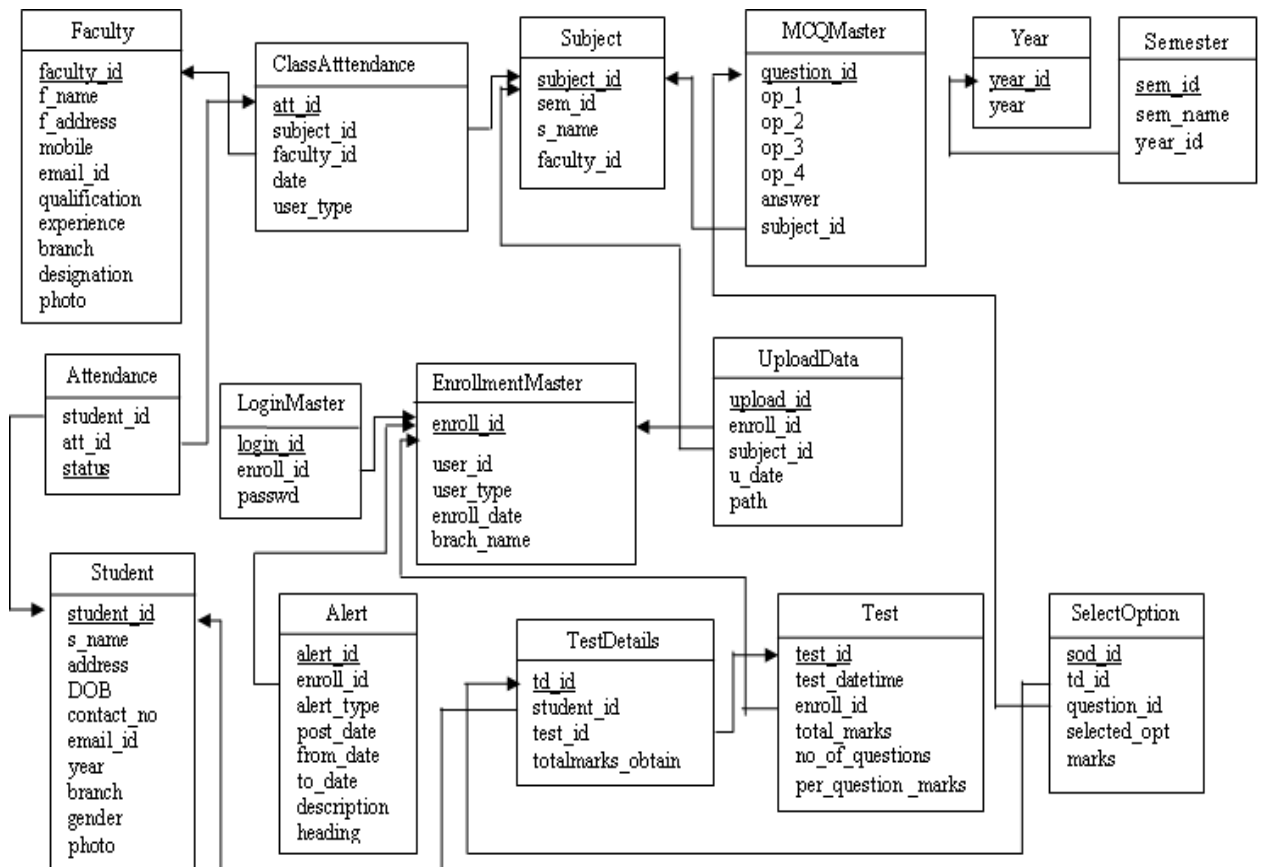


Fig. 2 E-CI!k web portal database design

V. DEVELOPMENT

E-CI!k portal provides User Friendly user interface through which the user i.e. Student or Faculty can access the portal through any browser as per their convenience sitting anywhere in college campus or at home to access the 5 E's. For the development of E-CI!k web portal we have used different technologies such as ASP.NET and C#.NET languages for development of portal, Microsoft Visual Studio 2010 for graphical user interface, Microsoft SQL Server 2008 for database management. Some of the screenshots of E-CI!k portal are shown below:

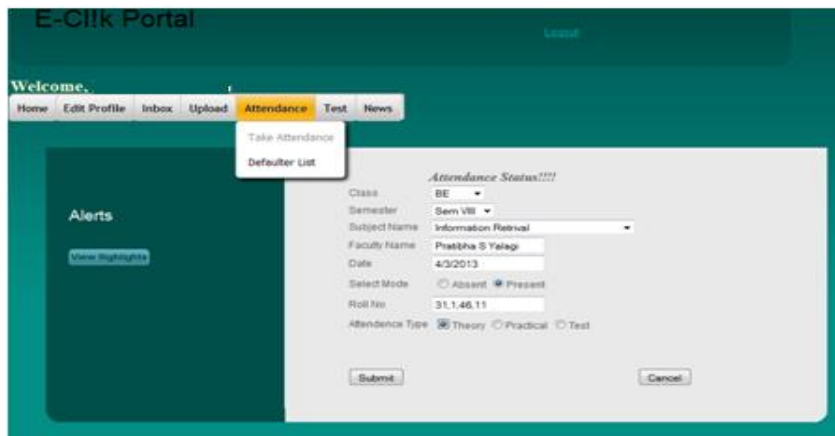


Fig. 3: Faculty Attendance taking form

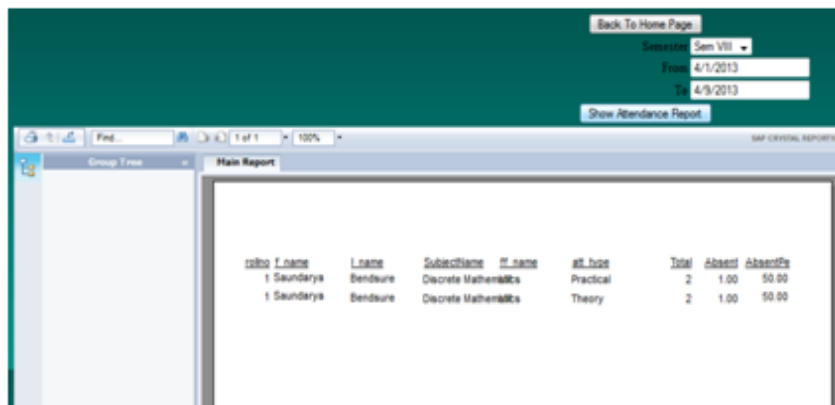


Fig. 4: Faculty attendance report

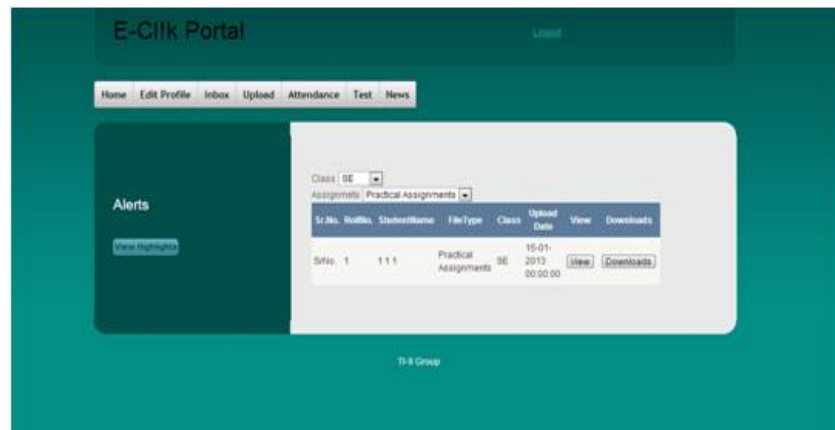


Fig. 5: Faculty inbox

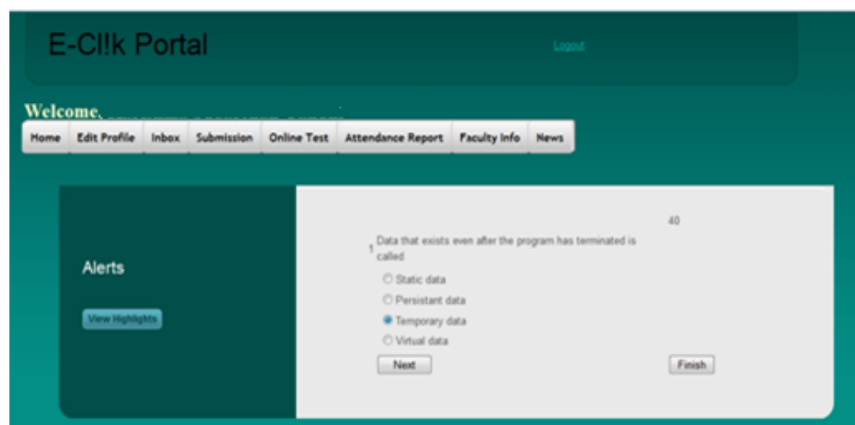


Fig. 6: Student test form

VI. CONCLUSION AND FUTURE SCOPE

These days web based applications are developed by using leading-edge web technologies for more flexibility, use of application without system dependency, accessing features of applications easily, and centralized file access. Now a day usage of Internet has been extended to large volume. E-Click Portal highlights the essentials needs of today's educational system. Our portal will act as an intermediate between faculty and student for knowledge sharing. It will be helpful to user to provide features such as time management and user friendly access. E-Click Portal project can be extended to college level and creation of database can be extracted by triggering from file and also including the AJAX concept in portal.

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